## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 13 October 2005 (13.10.2005)

**PCT** 

## (10) International Publication Number $WO\ 2005/096149\ A1$

(51) International Patent Classification<sup>7</sup>:

G06F 9/46

(21) International Application Number:

PCT/GB2005/001300

(22) International Filing Date: 1 April 2005 (01.04.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

0407544.6 2 April 2004 (02.04.2004) GB

(71) Applicant (for all designated States except US): SYMBIAN SOFTWARE LIMITED [GB/GB]; 2-6 Boundary Row, London SE1 8HP (GB).

- (72) Inventor; and
- (75) Inventor/Applicant (for US only): MAY, Dennis [GB/GB]; Symbian Software Limited, 2-6 Boundary Row, London SE1 8HP (GB).
- (74) Agent: MARGOLIS, Andrew; Legal Department, Symbian Software Limited, 2-6 Boundary Row, London SE1 8HP (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

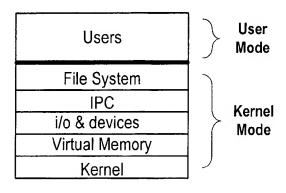
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

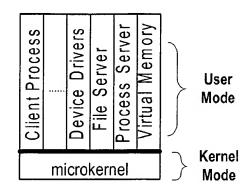
with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: IMPROVEMENTS IN OR RELATING TO AN OPERATING SYSTEM FOR A COMPUTING DEVICE



Layered monolithic kernel design



Microkernel design

(57) Abstract: An operating system for a computing device includes a scheduler incorporating an algorithm for ordering the running of threads of execution having different priorities. The operating system is also arranged to provide a list of threads which are scheduled to run on the device, ordered by priority. At least one locking mechanism for docking access to a resource of the device from all threads except for a thread that holds the locking mechanism is also provided, and the operating system arranges for a scheduled thread which is docked from running because the resource it requires is locked to cause the thread which holds the locking mechanism to run.

